

Region 3 GPRA Baseline RCRA Corrective Action Facility

Bethlehem Steel Corporation - Bethlehem Works

1805 East 4th Street
Bethlehem, PA 18016-7699
Congressional District 15
EPA ID #: PAD990824161
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Current Progress at the Site

EPA, PADEP and Bethlehem Steel Corporation-Bethlehem Plant (BSC) have formed a team to proceed with the clean-up of the facility. The facility is subject to RCRA corrective action, however, BSC's redevelopment plans hinge on obtaining a release from liability which is available for remediation performed under the Pennsylvania Act 2 Land Recycling Program. The redevelopment plan is designed to revitalize South Bethlehem, which has been in an economic slump since BSC started downsizing in the 1970's.

The facility has been divided into 2 different areas for redevelopment; Bethlehem Works and Bethlehem Commerce Center, which includes the Coke Works Area, Majestic Realty, Conectiv, Saucon, East Lehigh, and the Greenway.

Bethlehem Works

At *Bethlehem Works* area, on the western side of BSC, demolition of buildings and removal of some soil has been completed. EPA, PADEP, and BSC have agreed on the remediation work completed. PADEP and EPA have approved the soil remediation and the groundwater investigation under the Act 2 and federal corrective action programs respectively. Current studies indicate that the small amount of residual VOC contamination in the alluvial aquifer does not impact the Lehigh River.

Building demolition and the soil investigation happened concurrently. At that time, degreasers, which may have been sources of contamination, were excavated and other soil contamination was removed (down to 2 feet) when it was found and backfilled with clean fill. The redevelopment plan calls for most of *Bethlehem Works* to be paved over, which will eliminate any avenue of exposure from soil contamination left on-site.

Bethlehem Works is to become the Riverfront Renaissance District. This is a \$400 million redevelopment project, expected to include a multiplex movie theater, ice skating center, swimming pool facilities and other entertainment and retail establishments. The cornerstone of *Bethlehem Works* is the establishment of the National Museum of Industrial History, an annex

to the Smithsonian Institution. A preview center for the museum is expected to open in late 2003.

Bethlehem Commerce Center

Coke Works

The second phase of investigation and remediation encompasses the 390 acres at the southern end of the facility where the former Coke Plant is located. Investigation of the soils and groundwater beneath the *Coke Works* began in March 1999. The primary contaminants of concern are BTEX (benzene, toluene, ethyl benzene and xylene) and naphthalene, which are all common contaminants of the historic coke operations and by-product chemical production. Several waste disposal areas have been found, as well as widespread soil contamination. The underlying groundwater is also contaminated. Currently, the characterization investigation is focusing on soil gas studies, which will help identify risks from vapors emanating from the soils, and a groundwater computer model which will aid in visualizing long-term remedy strategies.

EPA, PADEPA and Bethlehem Steel have jointly developed a plan for increasing airflow in the soils, with the expectation of increasing microbial activity and the degradation of the organic contaminants. The “passive bio-venting” strategy uses standard technologies in an innovative way. The system will consume very little energy and has low maintenance requirements, lending itself well to the facility’s redevelopment vision. We hope to have the system running, with data available in the next six months.

Commerce Center Boulevard, a road linking Rt 412 with the intermodal transportation area, the Conectiv and the Majestic projects in the East Lehigh area is under construction. Part of the Boulevard crosses the Coke Ovens area. BSC studied the risks the Coke Ovens area posed to road construction workers as well as those using the road, and submitted a risk evaluation to EPA and PADEP. EPA and PADEP approved construction of the road in July 2001.

EPA, PADEP, and BSC have discussed the regulatory expectations for remediation of the *Coke Works*, consistent with its intended redevelopment with light and heavy industrial activities. The workgroup is developing proposals to eliminate the exposure threats posed by the soils and groundwater.

Conectiv

A 53.3-acre area along Apple Butter Road in the East Lehigh portion of the site is slated to be home a 1100-watt natural gas fired power plant. BSC submitted a soils characterization report, “Final Report of Soils, Conectiv Mid-Merit, Inc., Project Area”, which EPA and PADEP approved in October 2001. The contaminants in the soil are below Pennsylvania Act 2 state-wide health-based levels. PADEP granted liability protection for soils pursuant to the Act 2 program. Conectiv began construction of the plant shortly thereafter. The plant is expected to open in early 2003. Total investment in this project is expected to be \$600M.

Majestic Realty

An additional 450 acres in the East Lehigh area has been proposed for a warehousing and distribution center. BSC is currently in final negotiations with Majestic Realty Company, a real estate developer based in California. Some industrial activity was formerly located on the site. A soils characterization is currently in the early stages and is expected to continue into the next year.

Saucon and East Lehigh

The remainder of Saucon and East Lehigh acreage is in the early stages of negotiation for redevelopment with several interested parties. As firm buyer/redevelopment plans are realized, investigations and clean-up strategies will be initiated by the Team.

Greenway

BSC is looking into creating a public environmental or educational area on 110 acres along the easternmost property boundary. BSC is coordinating with state and local groups to determine the best use of this property.

Site Description

Located on the south side of Bethlehem, PA, Bethlehem Steel's Bethlehem Plant has been in operation since the 1880s. BSC closed its last operations in March, 1998. The site, part of which borders then Lehigh River, consists of approximately 2000 acres, on which are a coke production plant, steel iron making operations, finishing and forging operations, and a chemical plant.

Contaminants

The main contaminants in the groundwater are PAHs (poly aromatic hydrocarbons), and solvents, such as TCE and tetrachloroethane, The primary contaminants in the soil are solvents, PAHs, and heavy metals, such as arsenic and lead.

Community Interaction

From the out-set, BSC has been working closely with the city of Bethlehem on the redevelopment project. BSC has issued all public notices of "Intent to Remediate" and "Remedial Investigation Report" required under the Act 2 program. Bethlehem Steel held a public meeting October 21, 1998 to keep the public up-to-date on the investigation to that point, as well as future investigations and resale plans for the property. PADEP and EPA were in attendance.

Government Contacts

EPA Project Manager
Ms. Linda Matyskiela - 3WC22
U.S. Environmental Protection Agency - Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Phone: (215) 814-3420
Email: matyskiela.linda@epa.gov

PADEP Project Manager
Mr. Randy Roush
Pennsylvania Department of Environmental Protection
Bureau of Land Recycling and Waste Management
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17105
Phone: (717) 787-7816
Email: raroush@state.pa.us

For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm

Government Contacts

Mr. Edwin Wilson, Director
Environmental Assessment & Remediation
Bethlehem Steel Corporation
1170 Eight Avenue
Bethlehem, PA 18016-7699
Phone: (610) 694-6660
Email: edwin.wilson@bethsteel.com